



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,336	05/15/2001	Philip R. Patterson	P0366	1102

23735 7590 04/28/2003

DIGIMARC CORPORATION  
19801 SW 72ND AVENUE  
SUITE 100  
TUALATIN, OR 97062

EXAMINER

WANG, JIN CHENG

ART UNIT	PAPER NUMBER
----------	--------------

2672

DATE MAILED: 04/28/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

2

# Office Action Summary

Application No.

09/858,336

Applicant(s)

PATTERSON ET AL.

Examiner

Jin-Cheng Wang

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Specification*

1. The applicant or their representatives are urged to review the specification for all mistakes of a clerical or typographical nature. Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities: On page 22, line 7 of claim 23, "an least" should be "at least". On page 23, line 7 of claim 28, "an least" should be "at least". Appropriate correction of all mistakes is required.

### *Claim Objections*

3. Claim 23 is objected to because of the following informalities: On line 7 of claim 23, "an least" should be "at least". Appropriate correction is required.
4. Claim 28 is objected to because of the following informalities: On line 7 of claim 28, "an least" should be "at least". Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Levy et al. U.S. Pat. No. 6,505,160.

Art Unit: 2672

7. Claim 1:

U.S. Pat. No. 6,505,160 to Levy et al. (Levy) teaches a method of maintaining images in a database, wherein a first image includes a digital watermark embedded therein, the digital watermark comprising a first unique identifier, said method comprising the steps of:

(a) Storing the first image to be indexed by the first unique identifier (column 2, lines 5-10, column 6, lines 15-28);

(b) Storing information related to the first image (column 2, lines 38-61, column 3, lines 65-67, column 4, lines 1-19); and

(c) Linking the first image (still images or media objects) and the related information (such as metadata) by the first unique identifier (column 2, lines 5-12).

Claim 2:

The claim 2 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of storing in the database at least a second image and linking the first image and the second image with the first unique identifier. However, Levy further discloses the claimed limitation of storing in the database at least a second image and linking the first image and the second image with the first unique identifier (column 4, lines 10-13, column 8, lines 8-19, column 8, lines 65-67, lines 1-6, column 10, lines 4-17, column 15, lines 55-62).

Claim 3:

The claim 3 encompasses the same scope of invention as that of claim 2 except additional claimed limitation of the second image comprising a derivative of the first image. However, Levy further discloses the claimed limitation of the second image comprising a derivative of the

Art Unit: 2672

first image (column 4, lines 10-13; column 8, lines 8-19; column 8, lines 65-67; column 9, lines 1-6; column 10, lines 4-17; column 15, lines 55-62).

Claim 4:

The claim 4 encompasses the same scope of invention as that of claim 3 except additional claimed limitation that the second image includes a digital watermark embedded therein, the digital watermark comprising a second unique identifier, and wherein said method further comprises the step of linking the second unique identifier to the first unique identifier. However, Levy further discloses the claimed limitation that the second image includes a digital watermark embedded therein, the digital watermark comprising a second unique identifier, and wherein said method further comprises the step of linking the second unique identifier to the first unique identifier (column 8, lines 65-67, column 9, lines 1-6).

Claim 5:

The claim 5 encompasses the same scope of invention as that of claim 3 except additional claimed limitation of the related information comprising a history of the image. However, Levy further discloses the claimed limitation of the related information comprising a history of the image (column 12, lines 55-60).

Claim 6:

The claim 6 encompasses the same scope of invention as that of claim 5 except additional claimed limitation of the history comprising at least one of user usage, creation time, transmission, printing and image checkout. However, Levy further discloses the claimed limitation of the history comprising at least one of user usage, creation time, transmission,

Art Unit: 2672

printing and image checkout (column 12, lines 55-60, column 14, lines 26-33, column 15, lines 1-2).

Claim 7:

The claim 7 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the database comprising a plurality of databases.

However, Levy further discloses the claimed limitation of the database comprising a plurality of databases (column 14, lines 1-9).

Claim 8:

The claim 8 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the related information comprising at least one of metadata, location, date, permission level, security access levels, analyst comments, notes, files, and past usage information. However, Levy further discloses the claimed limitation of the related information comprising at least one of metadata, location, date, permission level, security access levels, analyst comments, notes, files, and past usage information (column 6, lines 5-28, column 14, lines 30-33).

8. Claim 9:

U.S. Pat. No. 6,505,160 to Levy et al. (Levy) teaches a method for managing images, the images including a first image comprising a first identifier steganographically embedded in the first image in the form of a digital watermark (column 2, lines 22-37), said method comprising the steps of:

(a) Retrieving the first image from a database (column 14, lines 1-9);

Art Unit: 2672

(b) Altering the first image to create a second image (column 4, lines 10-13; column 8, lines 8-19; column 8, lines 65-67; column 9, lines 1-6; column 10, lines 4-17; column 15, lines 55-62);

(c) Steganographically embedding a second identifier in the second image in the form of a digital watermark (column 15, lines 16-62);

(d) Associating the second image in the database with the first identifier (column 15, lines 55-62).

Claim 10:

The claim 10 encompasses the same scope of invention as that of claim 9 except additional claimed limitation of removing the first identifier from the second image. However, Levy further discloses the claimed limitation of removing the first identifier from the second image (column 15, lines 24-34).

Claim 11:

The claim 11 encompasses the same scope of invention as that of claim 9 except additional claimed limitation of altering the first identifier in the second image. However, Levy further discloses the claimed limitation of altering the first identifier in the second image (column 15, lines 24-34).

Claim 12:

The claim 12 encompasses the same scope of invention as that of claim 9 except additional claimed limitation of storing information related to the first image in the database. However, Levy further discloses the claimed limitation of storing information related to the first image in the database (column 7, lines 13-20).

Art Unit: 2672

Claim 13:

The claim 13 encompasses the same scope of invention as that of claim 12 except additional claimed limitation of the related information comprising at least one of metadata, location, date, permission level, security access levels, analyst comments, notes, files, and past usage information. However, Levy further discloses the claimed limitation of the related information comprising at least one of metadata, location, date, permission level, security access levels, analyst comments, notes, files, and past usage information (column 6, lines 5-28, column 14, lines 30-33).

Claim 14:

The claim 14 encompasses the same scope of invention as that of claim 13 except additional claimed limitation of the database comprising a plurality of databases.

However, Levy further discloses the claimed limitation of the database comprising a plurality of databases (column 14, lines 1-9).

9. Claims 15-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Glass et al. U.S. Pat. No. 6,332,193.

10. Claim 15:

U.S. Pat. No. 6,332,193 to Glass et al. teaches a method to monitor images in a system, the system comprising at least a first user terminal (server 10) to communicate with a second user terminal (a banking system) and with a database (central database, column 9, lines 8-25, column 10, lines 3-5), the images comprising at least a first image digitally watermarked to include a first identifier (column 7, lines 3-33), said method comprising the steps of:

Art Unit: 2672

Determining a security level (digital signature embedded into the image) associated with the first image (column 9, lines 8-25);

Comparing the first image security level (digital signature) with a user security level (column 6, lines 50-56; by the image authentication module 15, column 9, lines 44-60); and

Allowing access (by the banking system) to the first image based on a result of said comparison step (column 9, lines 8-25, column 9, lines 51-60).

Claim 16:

The claim 16 encompasses the same scope of invention as that of claim 15 except additional claimed limitation of recording a transmission in the database of the first image from the first user terminal to the second user terminal. However, Glass further discloses the claimed limitation of recording a transmission in the database of the first image from the first user terminal to the second user terminal (column 9, lines 51-60).

Claim 17:

The claim 17 encompasses the same scope of invention as that of claim 15 except additional claimed limitation of decoding the digital watermark to determine the first identifier and interrogating the database with the first identifier to retrieve the security level.

However, Glass further discloses the claimed limitation of decoding the digital watermark to determine the first identifier (the image authentication module 15, column 9, lines 44-60, column 7, lines 12-30) and interrogating the database with the first identifier to retrieve the security level (column 10, lines 1-5).

Claim 18:

Art Unit: 2672

The claim 18 encompasses the same scope of invention as that of claim 15 except additional claimed limitation that the first image's digital watermark includes security level data, and wherein the determining step comprises the step of decoding the digital watermark to determine the security level.

However, Glass further discloses the claimed limitation that the first image's digital watermark includes security level data (digital signature comprises user's signature information, a token and camera's secret key, column 9, lines 29-31), and wherein the determining step comprises the step of decoding the digital watermark to determine the security level (column 10, lines 1-5, column 7, lines 11-30).

Claim 19:

The claim 19 encompasses the same scope of invention as that of claim 15 except additional claimed limitation that the user security level comprises at least one of a security level for a user and a security level for a user terminal.

However, Glass further discloses the claimed limitation that the user security level comprises at least one of a security level for a user (biometric identification, column 8, lines 55-62) and a security level for a user terminal (the secret key embedded in each camera, column 8, lines 63-67, column 54-60).

Claim 20:

The claim 20 encompasses the same scope of invention as that of claim 15 except additional claimed limitation that when the result is a match between the first image security level and the user security level access is allowed.

Art Unit: 2672

However, Glass further discloses the claimed limitation that when the result is a match between the first image security level and the user security level access is allowed (column 6, lines 50-56; authentication, column 9, lines 44-60).

Claim 21:

The claim 21 encompasses the same scope of invention as that of claim 15 except additional claimed limitation that the match indicates that the user security level is equal to or greater than the first image security level.

However, Glass further discloses the claimed limitation that the match indicates that the user security level is equal to or greater than the first image security level (authentication, column 9, lines 44-60).

Claim 22:

The claim 22 encompasses the same scope of invention as that of claim 15 except additional claimed limitation of recording access to the image.

However, Glass further discloses the claimed limitation of recording access to the image (column 9, lines 54-60).

11. Claim 23:

U.S. Pat. No. 6,332,193 to Glass et al. teaches a system comprising:

A first user terminal (client computer);

A second user terminal (e.g., the protected resource, server systems associated with other computer systems that perform online banking transactions, column 8, lines 25-34);

Art Unit: 2672

A database (central database, column 10, lines 1-9, column 8, lines 22-52), wherein the first user terminal (client computer) and the second user terminal (e.g., the protected resource, server systems associated with other computer systems that perform online banking transactions, column 8, lines 25-34) are in communication (over a network of figure 6), and the first user terminal and the second user terminal are each in communication with the database (i.e., central database, column 10, lines 1-9); and

A gatekeeper (the authentication server, column 8, lines 55-67) to regulate the flow of at least a first image between the first user terminal (a client computer) and the second user terminal (protected resource such as a banking system), wherein the first image comprises at least a first digital watermark (column 7, lines 3-33) including a first identifier, said gatekeeper to determine a security level (e.g., digital signatures) associated with the first image (column 9, lines 26-60), compare the first image security level with a user security level (computer a signature of the original data and check it against the signature sent with the data to see if the signature match, column 6, lines 50-56, column 9, lines 26-60), and to allow access by the second user terminal (the banking system) to the first image based on a result of the comparison (column 6, lines 50-56, column 9, lines 26-60).

Claim 24:

The claim 24 encompasses the same scope of invention as that of claim 23 except additional claimed limitation that the gatekeeper records in the database a transmission of the first image from the first user terminal to the second user terminal. However, Glass further

Art Unit: 2672

discloses the claimed limitation that the gatekeeper records in the database a transmission of the first image from the first user terminal to the second user terminal (column 9, lines 55-60).

Claim 25:

The claim 25 encompasses the same scope of invention as that of claim 23 except additional claimed limitation that the gatekeeper comprises software to decode the digital watermark to determine the first identifier, and to interrogate the database with the first identifier to retrieve the security level.

However, Glass further discloses the claimed limitation that the gatekeeper comprises software (the authentication module 15) to decode the digital watermark to determine the first identifier (column 9, lines 26-60), and to interrogate the database with the first identifier to retrieve the security level (column 10, lines 1-9).

Claim 26:

The claim 26 encompasses the same scope of invention as that of claim 23 except additional claimed limitation that the first image digital watermark includes security level data, and wherein the gatekeeper comprises software code to decode the digital watermark to determine the security level data.

However, Glass further discloses the claimed limitation that the first image digital watermark includes security level data (the signature information, column 7, lines 3-33), and wherein the gatekeeper comprises software code to decode the digital watermark to determine the security level data (column 9, lines 26-60).

Claim 27:

Art Unit: 2672

The claim 27 encompasses the same scope of invention as that of claim 23 except additional claimed limitation that the user security level comprises at least one of a security level for a user and a security level for a user terminal.

However, Glass further discloses the claimed limitation that the user security level comprises at least one of a security level for a user (biometric identification, column 8, lines 55-62) and a security level for a user terminal (the secret key embedded in each camera, column 8, lines 63-67, column 54-60).

12. Claim 28:

U.S. Pat. No. 6,332,193 to Glass et al. teaches a module (authentication module 15) for use in a network comprising at least a first terminal (server 10) in communication with a database (central database, column 9, lines 8-25, column 10, lines 3-5), said module to monitor the flow of at least a first image at a first network location, the first image comprising at least a first digital watermark including a first identifier (column 7, lines 3-33), said module comprising:

Means for determining a security level associated with the first image (digital signature embedded into the image, column 9, lines 8-25);

Means for comparing a first image security level (digital signature) with a user security level (computing the signature of the original data and compare against the signature sent with the data to see if there is a match, column 6, lines 50-56; by the image authentication module 15, column 6, lines 50-56, column 9, lines 44-60); and means for allowing access (from computer system for the banking transactions) to the first image based on a result of said comparison step (column 6, lines 50-56, column 9, lines 8-25, column 9, lines 51-60).

Art Unit: 2672

Claim 29:

The claim 29 encompasses the same scope of invention as that of claim 28 except additional claimed limitation of a fragile watermark. However, Glass further discloses the claimed limitation of a fragile watermark (column 7, lines 50-55).

### *Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zhao U.S. Pat. No. 6,243,480 discloses a method and system for protecting the security of digital representations.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213.

The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6606 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 395-3900.

Application/Control Number: 09/858,336

Page 15

Art Unit: 2672

jcw

April 15, 2003

A handwritten signature in black ink, appearing to read 'M. Razavi', with a long horizontal line extending to the right.

**MICHAEL RAZAVI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600**